IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	§		
Liang Jiang et al.	§	Group Art Unit:	3746
	§		
Serial No.: 10/682,227	§	Examiner:	Kim, Tai Jun
	§		
Filed: October 8, 2003	§	Confirmation No.:	8130
	§		
For: QUIET COMBUSTOR FOR A GAS TURBINE ENGINE	§	Atty. Docket:	126908-1/YOD GERD:0511

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37 C.F.R. 1.8

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November 2, 2007
Date — Lynda Howell

REPLY BRIEF PURSUANT TO 37 C.F.R. §§ 41.41

This Reply Brief is being filed in response to the Examiner's Answer mailed on September 5, 2007. This Reply Brief addresses the Examiner's misunderstanding of the technology, as well as the Examiner's continuing pattern of misapplying the teachings of the prior art beyond its reasonable limits in order to reach the subject matter taught and claimed by Appellants. In the interest of brevity in this Reply Brief, Appellants respectfully ask that the Board carefully consider the arguments set forth in the previously-filed Appeal Brief.

Prociw does not disclose a combustion liner closed at a forward end by a combustor liner cap assembly; or a cellular solid, metal foam media disposed in the locations recited in independent claims 1 and 15.

Independent claims 1, 15 recite a combustion liner closed at a forward end by a combustor liner cap assembly; and a cellular solid, metal foam media disposed in the locations recited in independent claims 1 and 15. In the Final Office Action the Examiner cited FIG. 2, element 12, 13, 14 of Prociw and argued that Prociw teaches a combustor and a combustor cap liner assembly that includes a combustor casing and a combustion liner within the combustor casing, the combustion liner being closed at a forward end by the combustor liner cap assembly and the combustor includes a cellular solid media (FIG. 2, element 12) disposed within the combustor liner cap assembly and/or between the combustion liner cap assembly and an end cover to the combustor.

Further, the Examiner pointed out on page 12 of the Examiner's Answer (paragraph 4) that the elements identified by the Examiner appropriately read on the claimed elements because they are in an analogous region, i.e., in the uppermost region of the combustor, also known as the "head" of the combustor and even around the burner tubes. Hence, according to the Examiner, the combustor cap assembly can be reasonably interpreted to include the region in the "head" of the combustor. The Examiner further stated that while the elements identified by the Examiner may not always have element numbers, that does not detract from the fact that these elements can be fairly read on the claimed invention and each of the applied references clearly employs a combustor liner and a cap assembly that closes off one end of the combustor.

On page 12 of the Examiner's Answer (paragraph 4), the Examiner referred to Webster's New Dictionary and Thesaurus, and stated that Appellants' allegations are not defined over the art of record, which structurally teach the claimed limitations. The Examiner's reliance on a dictionary definition of one isolated term is, however, misplaced. This is particularly so insomuch as the application itself discusses and shows

what the correct meaning should be. For instance, even if a "cap" is equated with a "cover" as defined in the dictionary, the Examiner has not demonstrated what a "combustor liner cap assembly" may mean and why one of ordinary skill in the art would use that element in a combustor with the claimed media. The Board should reject such extrinsic evidence in favor of the discussion and images provided intrinsically in the application itself.

Further, the Examiner pointed out on page 13 of the Examiner's Answer (paragraph 1) that the features upon which Appellants rely (i.e., the head end assembly including conventional supply tubes, manifolds, valves, even the feeding of gas, liquid fuel, air and water) are not recited in the rejected claims. Although the claims are interpreted in the light of the specification, limitations from the specification are not read into the claims. Further, the Examiner argued on page 14 of the Examiner's Answer (paragraph 2) that Appellants' arguments fail to give the plain meaning of the claims weight and improperly import limitations from the specification into the claims.

Appellants refer to the same paragraphs of MPEP cited by the Examiner and respectfully point out that the issue at hand is not merely finding the "broadest reasonable interpretation", as stated by the Examiner, but the "broadest *reasonable* interpretation *consistent with the specification*" (emphasis added). See MPEP 2111. It is in this connection that Appellants rely on the features discussed in the specification.

The Examiner pointed out on page 13 of the Examiner's Answer (paragraph 2) that Appellants' arguments on page 8 and 9 of the Appeal Brief appear to argue that the applied references must have exactly the same structure as disclosed by the Appellants in order to meet the claim limitations. In this connection, if the Examiner intended to refer to functional limitations, it is true that the Examiner must evaluate and consider the functional limitations, just like any other limitation of the claims, for what they fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.

If the Examiner believes the functional limitation to be inherent in the cited reference, then the Examiner must provide some evidence or scientific reasoning to establish the reasonableness of the Examiner's belief that the functional limitation is an inherent characteristic of the prior art. Appellants, therefore, respectfully request full consideration of the functional recitations, which clearly give context and meaning to the claim terms. In other words, the functional recitations define the scope of the claims. Appellants respectfully emphasize that it is improper for the Examiner to disregard or dismiss claim language that distinguishes the claims over the prior art.

Griffin does not disclose a combustor liner cap assembly, an end cover or cellular solid media disposed in the locations recited in each of independent claims 1 and 15.

As noted above, independent claims 1, 15 recite a combustor liner cap assembly, an end cover and cellular solid media disposed in certain defined locations. In the Final Office Action the Examiner argued that Griffin teaches a combustor and a combustor liner cap assembly, and that the combustor includes a cellular solid media disposed within the combustor liner cap assembly and/or between the combustion liner cap assembly and an end cover to the combustor.

The Examiner pointed out on page 18 of the Examiner's Answer (paragraph 1) that Appellants' arguments concerning the cellular solid media being disposed in the flow path of the combustor and not in the combustor liner cap assembly and/or between the combustor liner cap assembly and the end cover to the combustor are not persuasive because the features upon which the Appellants rely are not recited in the rejected claims. The Examiner further stated that there is nothing in the claims to set forth that the cellular media cannot be within the burner or the flow path thereof. Appellants respectfully reiterate that the functional recitations define the scope of the claims and it is improper for the Examiner to disregard or dismiss claim language that distinguishes the claims over the prior art. Moreover, the issue is *not* whether the reference teaches similar media

elsewhere, but whether it teaches that media in the locations claimed (or even the same structures in which the claimed media is placed).

Gutmark does not disclose an end cover.

The Examiner further pointed out on page 18 of the Examiner's Answer (paragraph 2) that arguments concerning inherency are mislead and that inherency only regards the nature of the end cover being inherent in such a device. According to the Examiner, the end cover is clearly shown in the Gutmark, which belongs to the same assignee as the Griffin patent and is necessary for enclosing the head end of the combustor and directing the air. Applicants urge the Board to reject this spurious connection. Common ownership implies *nothing* special in any relationship between these references. It is just as likely that the same assignee has two (or three, or a dozen) different designs. This is simply *not* a properly rigid analysis needed to support a *prima facie* case of obviousness. Moreover, Appellants further point out that if relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily flows* from the teachings of the applied prior art. The Examiner, in presenting any inherency argument, bears the evidentiary burden and must adequately satisfy this burden.

JP'549 does not disclose a combustor liner cap assembly, an end cover, or a cellular solid media disposed within the combustor liner cap assembly and/or between the combustion liner cap assembly and an end cover to the combustor.

The Examiner discussed on page 19 of the Examiner's Answer (paragraph 1) Appellants' arguments concerning JP'549. Appellants refer to the same paragraphs of the MPEP cited by the Examiner and respectfully reiterate that the issue at hand is not merely finding the "broadest reasonable interpretation", as stated by the Examiner, but the "broadest *reasonable* interpretation *consistent with the specification*". Here again, it is in this connection that the Appellants rely on the specification for interpreting the claims.

The combination of JP'549, Grandey and/or Brown, and Griffin and Gutmark do not produce the claimed invention.

The Examiner pointed out on page 20 of the Examiner's Answer (paragraph 3) that Appellants argue against the references individually, and that one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references.

Appellants have repeatedly argued that, where the Examiner has combined reference teachings, it is *that combination* that does not support a *prima facie* case of obviousness. Applicants have every right to point out deficiencies in the references, just as the Examiner points to their individual contributions to a proposed combination. If the references are deficient in such regards, or if the combination is not reasonable, a *prima facie* case cannot be established, following the *Graham* factors, and the rejection should be reversed.

Conclusion

In view of the foregoing discussion, Appellants respectfully request that the Board reverse the rejections and indicate the allowability of the pending claims.

Respectfully submitted,

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